BAB VI

KESIMPULAN DAN SARAN

Kesimpulan yang dapat diperoleh dari hasil analisis yang telah dilakukan dalam membandingkan desain bangunan dengan menggunakan SNI lama dan SNI baru antara lain :

1. Jumlah tulangan longitudinal yang menahan tarik pada balok berdasarkan SNI gempa 2002 dan SNI beton 2002 adalah tulangan tumpuan 2 D 22 dan tulangan lapangan 2 D 22, sedangkan jumlah tulangan longitudinal pada balok berdasarkan SNI gempa 2012 dan RSNI beton 201X adalah tulangan

2. Peningkatan kebutuhan tulangan longitudinal balok dibandingkan perencanaan berdasarkan SNI gempa 2002 dan SNI beton 2002 dengan perencanaan berdasarkan SNI gempa 2012 dan RSNI beton 201X adalah 83,66%.
3. Jumlah tulangan longitudinal pada kolom berdasarkan SNI gempa 2002 dan SNI beton 2002 adalah 8 D 25 sedangkan berdasarkan SNI gempa 2012 dan RSNI beton 201X adalah 12 D 25.
4. Peningkatan kebutuhan tulangan longitudinal kolom dibandingkan perencanaan berdasarkan SNI gempa 2002 dan SNI beton 2002 dengan perencanaan berdasarkan SNI gempa 2012 dan RSNI beton 201X adalah 60%.

5. Gaya geser gempa yang dihasilkan berdasarkan SNI gempa 2002 dan SNI beton 2002 adalah 903,7485 kN sedangkan berdasarkan SNI gempa 2012 dan RSNI beton 201X adalah 1305,1597 kN.
6. Simpangan antar lantai berdasarkan SNI gempa 2002 dan SNI beton 2002 dengan SNI gempa 2012 dan RSNI beton 201X memiliki perbedaan hasil namun masih memenuhi syarat.
7. Gedung yang didesain dengan menggunakan SNI gempa 2002 dan SNI beton 2002 dengan SNI gempa 2012 dan RSNI beton 201X memiliki perbedaan yang cukup signifikan, sehingga gedung – gedung yang sudah dibangun dengan menggunakan SNI gempa 2002 adan SNI beton 2002 sebaiknya ditinjau kembali ketahanannya terhadap gaya gempa.

Dari penulisan tugas akhir ini dengan topik studi komparasi SNI Gempa dan Beton 2002 dan 2012 maka terdapat beberapa saran :

1. Analisis selanjutnya dapat dikembangkan dengan membandingkan gedung yang terletak di wilayah yang berbeda.
2. Dapat dikembangkan analisis lebih lanjut dengan membandingkan struktur rangka pemikul momen khusus dengan struktur rangka pemikul momen menengah .

DAFTAR PUSTAKA

Arfiadi, Y, 2013, Implikasi Penggunaan Peta Gempa 2010 pada Perencanaan Gedung di Kota Yogyakarta, *Jurnal Teknik Sipil Universitas Atma Jaya Yogyakarta,* vol. 12, no. 2, pp. 104 – 116.

Arfiadi, Y dan Satyarno, I., 2013, Perbandingan Spektra Desain Beberapa Kota Besar di Indonesia dalam SNI Gempa 2012 dan SNI Gempa 2002, *Konferensi Nasional Teknik Sipil 7.*

Bozorgnia, Y dan Bertero, V.V., 2004, *Earthquake Engineering from Engineering Seismology to Performance-Based Engineering*, CRC Press, Washington D.C.

Budiono, B dan Supriatna, L., 2011, *Studi Komparasi Desain Bangunan Tahan Gempa dengan Menggunakan SNI 03-1726-2002 dan RSNI 03-1726-201X*, Institut Teknologi Bandung, Bandung.

Building Seismic Safety Council, 2012, *2009 NEHRP Recommended Seismic Provisions : Design Examples (FEMA P-751)*, Federal Emergency Management Agency, Washington, D.C.

Desain Spektra Indonesia, diakses 19 September 2013.
http://puskim.pu.go.id/Aplikasi/desain_spektra_indonesia_2011/

Imran, I dan Hendrik, F., 2010, *Perencanaan Struktur Gedung Beton Bertulang Tahan Gempa,* Penerbit ITB, Bandung.

Imran, I., 2013, *Perancangan Struktur Beton Tahan Gempa Sesuai Dengan RSNI 03-2847-201X*, Short Course HAKI, Komda Yogyakarta.

Irsyam, M., Sengara, IW., Aldiamar, F., Widiyantoro, S., Hilman, D., Kertapati, E., Meilano, I., Asrurifak, M., Ridwan, M., dan Suhardjono, 2010, *Ringkasan Hasil Studi Tim Revisi Peta Gempa Indonesia 2010 (edisi 2)*, Kementrian Pekerjaan Umum, Bandung.

Panitia Teknik Konstruksi dan Bangunan, 2002, *Tata Cara Perencanaan Ketahanan Gempa untuk Bangunan Gedung (SNI 03-1726-2002)*, Badan Standardisasi Nasional.

Panitia Teknik Konstruksi dan Bangunan, 2002, *Tata Cara Perhitungan Struktur Beton Untuk Bangunan Gedung*, Badan Standardisasi Nasional.

Spesifikasi dan Dimensi Lift, diakses 25 Oktober 2013. http://www.hyundaielevator.co.kr/eng/elevators/products/mid/YZER/yzer.jsp.

Sub Panitia Teknis Bahan, Sains, Struktur, dan Konstruksi Bangunan, 2012, *Persyaratan Beton Struktural untuk Bangunan Gedung (RSNI 03-2847-201X)*, Badan Standardisasi Nasional, Jakarta.

Sub Panitia Teknis Bahan, Sains, Struktur, dan Konstruksi dan Bangunan, 2012, *Tata Cara Perencanaan Ketahanan Gempa untuk Struktur Bangunan Gedung dan Non Gedung (SNI 03-1726-2012)*, Badan Standardisasi Nasional, Jakarta.

Lampiran 1. *Output* ETABS untuk Analisis Kolom dengan SNI 2002

y	Column	Load	Loc	P	V2	V3	T	M2	M3
)RY2	C9	COMBENVE MAX	0	145.05	42.53	92.94	6.687	118.638	84.939
)RY2	C9	COMBENVE MAX	1.7	145.05	42.53	92.94	6.687	39.363	12.635
)RY2	C9	COMBENVE MAX	2	145.05	42.53	92.94	6.687	67.246	0.926
)RY2	C9	COMBENVE MAX	2	109.66	42.57	93.94	6.744	68.017	1.278
)RY2	C9	COMBENVE MAX	3.4	109.66	42.57	93.94	6.744	63.498	60.876
)RY2	C9	COMBENVE MIN	0	-982.57	-42.53	-92.94	-6.687	-118.638	-84.939
)RY2	C9	COMBENVE MIN	1.7	-962.01	-42.53	-92.94	-6.687	-39.363	-12.635
)RY2	C9	COMBENVE MIN	2	-958.38	-42.53	-92.94	-6.687	-67.246	-3.008
)RY2	C9	COMBENVE MIN	2	-871.72	-42.57	-93.94	-6.744	-68.017	-3.017
)RY2	C9	COMBENVE MIN	3.4	-854.79	-42.57	-93.94	-6.744	-63.498	-60.876
)RY2	C10	COMBENVE MAX	0	147.79	80.74	71.87	6.716	144.644	163.072
)RY2	C10	COMBENVE MAX	1.7	147.79	80.74	71.87	6.716	22.461	25.821
)RY2	C10	COMBENVE MAX	3.4	147.79	80.74	71.87	6.716	99.722	92.339
)RY2	C10	COMBENVE MIN	0	-1307.18	-66.46	-71.87	-6.716	-144.644	-133.617
)RY2	C10	COMBENVE MIN	1.7	-1286.61	-66.46	-71.87	-6.716	-22.461	-20.639
)RY2	C10	COMBENVE MIN	3.4	-1266.05	-66.46	-71.87	-6.716	-99.722	-111.429
)RY2	C11	COMBENVE MAX	0	134.04	68.96	71.44	6.716	143.644	138.722
)RY2	C11	COMBENVE MAX	1.7	134.04	68.96	71.44	6.716	22.201	21.494
)RY2	C11	COMBENVE MAX	3.4	134.04	68.96	71.44	6.716	99.241	95.734
)RY2	C11	COMBENVE MIN	0	-1217.59	-68.96	-71.44	-6.716	-143.644	-138.722
)RY2	C11	COMBENVE MIN	1.7	-1197.03	-68.96	-71.44	-6.716	-22.201	-21.494
)RY2	C11	COMBENVE MIN	3.4	-1176.46	-68.96	-71.44	-6.716	-99.241	-95.734
)RY2	C12	COMBENVE MAX	0	133.51	55.01	84.01	6.716	168.936	110.807
)RY2	C12	COMBENVE MAX	1.7	133.51	55.01	84.01	6.716	26.121	17.284
)RY2	C12	COMBENVE MAX	3.4	133.51	55.01	84.01	6.716	116.693	62.944
)RY2	C12	COMBENVE MIN	0	-657.25	-44.52	-84.01	-6.716	-168.936	-88.415
)RY2	C12	COMBENVE MIN	1.7	-636.69	-44.52	-84.01	-6.716	-26.121	-12.736
)RY2	C12	COMBENVE MIN	3.4	-616.13	-44.52	-84.01	-6.716	-116.693	-76.239
)RY2	C13	COMBENVE MAX	0	109.71	47.01	96.14	6.687	124.327	93.136
)RY2	C13	COMBENVE MAX	1.7	109.71	47.01	96.14	6.687	39.114	13.212
)RY2	C13	COMBENVE MAX	2	109.71	47.01	96.14	6.687	67.956	0.892
)RY2	C13	COMBENVE MAX	2	102.88	46.98	95.14	6.744	67.592	0.527
)RY2	C13	COMBENVE MAX	3.4	102.88	46.98	95.14	6.744	65.61	65.504
)RY2	C13	COMBENVE MIN	0	-955.56	-47.01	-96.14	-6.687	-124.327	-93.136
)RY2	C13	COMBENVE MIN	1.7	-934.99	-47.01	-96.14	-6.687	-39.114	-13.212
)RY2	C13	COMBENVE MIN	2	-931.36	-47.01	-96.14	-6.687	-67.956	-3.037
)RY2	C13	COMBENVE MIN	2	-848.6	-46.98	-95.14	-6.744	-67.592	-3.028
)RY2	C13	COMBENVE MIN	3.4	-831.66	-46.98	-95.14	-6.744	-65.61	-65.504
)RY2	C14	COMBENVE MAX	0	142.85	80.14	73.16	6.716	147.79	161.968
)RY2	C14	COMBENVE MAX	1.7	142.85	80.14	73.16	6.716	23.417	25.737

Lampiran 1. (Lanjutan)

	Column	Load	Loc	P	V2	V3	T	M2	M3
Y2	C14	COMBENVE MAX	3.4	142.85	80.14	73.16	6.716	100.955	99.277
Y2	C14	COMBENVE MIN	0	-1225.32	-71.64	-73.16	-6.716	-147.79	-144.291
Y2	C14	COMBENVE MIN	1.7	-1204.76	-71.64	-73.16	-6.716	-23.417	-22.507
Y2	C14	COMBENVE MIN	3.4	-1184.2	-71.64	-73.16	-6.716	-100.955	-110.495
Y2	C15	COMBENVE MAX	0	126.6	73.47	72.79	6.716	146.969	148.082
Y2	C15	COMBENVE MAX	1.7	126.6	73.47	72.79	6.716	23.226	23.176
Y2	C15	COMBENVE MAX	3.4	126.6	73.47	72.79	6.716	100.516	101.729
Y2	C15	COMBENVE MIN	0	-1137.79	-73.47	-72.79	-6.716	-146.969	-148.082
Y2	C15	COMBENVE MIN	1.7	-1117.23	-73.47	-72.79	-6.716	-23.226	-23.176
Y2	C15	COMBENVE MIN	3.4	-1096.66	-73.47	-72.79	-6.716	-100.516	-101.729
Y2	C16	COMBENVE MAX	0	109.16	54.89	85.99	6.716	173.547	110.956
Y2	C16	COMBENVE MAX	1.7	109.16	54.89	85.99	6.716	27.37	17.636
Y2	C16	COMBENVE MAX	3.4	109.16	54.89	85.99	6.716	118.808	68.086
Y2	C16	COMBENVE MIN	0	-760.08	-48.5	-85.99	-6.716	-173.547	-96.798
Y2	C16	COMBENVE MIN	1.7	-739.52	-48.5	-85.99	-6.716	-27.37	-14.356
Y2	C16	COMBENVE MIN	3.4	-718.96	-48.5	-85.99	-6.716	-118.808	-75.683
RY2	C17	COMBENVE MAX	0	254.5	53.93	172.08	6.716	347.314	108.245
RY2	C17	COMBENVE MAX	1.7	254.5	53.93	172.08	6.716	62.649	16.566
RY2	C17	COMBENVE MAX	3.4	254.5	53.93	172.08	6.716	64.432	75.112
RY2	C17	COMBENVE MIN	0	-4684.34	-53.93	-45.94	-6.716	-91.779	-108.245
RY2	C17	COMBENVE MIN	1.7	-4663.77	-53.93	-45.94	-6.716	-13.674	-16.566
RY2	C17	COMBENVE MIN	3.4	-4643.21	-53.93	-45.94	-6.716	-237.769	-75.112
RY2	C18	COMBENVE MAX	0	164.75	85.2	44.83	6.716	91.56	172.176
RY2	C18	COMBENVE MAX	1.7	164.75	85.2	44.83	6.716	18.844	27.341
RY2	C18	COMBENVE MAX	3.4	164.75	85.2	44.83	6.716	53.67	117.494
RY2	C18	COMBENVE MIN	0	-1642.65	-85.2	-37.7	-6.716	-74.523	-172.176
RY2	C18	COMBENVE MIN	1.7	-1622.09	-85.2	-37.7	-6.716	-10.426	-27.341
RY2	C18	COMBENVE MIN	3.4	-1601.53	-85.2	-37.7	-6.716	-60.865	-117.494
RY2	C19	COMBENVE MAX	0	166.53	85.03	44.5	6.716	90.778	171.816
RY2	C19	COMBENVE MAX	1.7	166.53	85.03	44.5	6.716	18.499	27.273
RY2	C19	COMBENVE MAX	3.4	166.53	85.03	44.5	6.716	53.528	117.27
RY2	C19	COMBENVE MIN	0	-1630.03	-85.03	-37.52	-6.716	-74.035	-171.816
RY2	C19	COMBENVE MIN	1.7	-1609.47	-85.03	-37.52	-6.716	-10.253	-27.273
RY2	C19	COMBENVE MIN	3.4	-1588.91	-85.03	-37.52	-6.716	-60.53	-117.27
RY2	C20	COMBENVE MAX	0	223.09	56.31	169.77	6.716	342.233	113.127
RY2	C20	COMBENVE MAX	1.7	223.09	56.31	169.77	6.716	60.887	18.412
RY2	C20	COMBENVE MAX	3.4	223.09	56.31	169.77	6.716	63.138	78.316
RY2	C20	COMBENVE MIN	0	-4679.7	-56.31	-44.62	-6.716	-88.572	-113.127
RY2	C20	COMBENVE MIN	1.7	-4659.13	-56.31	-44.62	-6.716	-12.717	-17.405
RY2	C20	COMBENVE MIN	3.4	-4638.57	-56.31	-44.62	-6.716	-234.983	-78.316

Lampiran 2. *Output* ETABS untuk Analisis Balok dengan SNI 2002

Story	Beam	Load	Loc	P	V2	V3	T	M2	M3
STORY2	B17	COMBENVE MAX	0.3	0	30.7	0	0.813	0	102.271
STORY2	B17	COMBENVE MAX	0.792	0	30.7	0	0.813	0	87.156
STORY2	B17	COMBENVE MAX	1.285	0	30.7	0	0.813	0	72.041
STORY2	B17	COMBENVE MAX	1.777	0	30.7	0	0.813	0	69.333
STORY2	B17	COMBENVE MAX	2.269	0	30.7	0	0.813	0	63.413
STORY2	B17	COMBENVE MAX	2.762	0	30.7	0	0.813	0	54.213
STORY2	B17	COMBENVE MAX	3.254	0	30.7	0	0.813	0	49.172
STORY2	B17	COMBENVE MAX	3.746	0	35.35	0	0.813	0	44.83
STORY2	B17	COMBENVE MAX	4.238	0	42.01	0	0.813	0	35.384
STORY2	B17	COMBENVE MAX	4.731	0	48.68	0	0.813	0	33.761
STORY2	B17	COMBENVE MAX	5.223	0	55.34	0	0.813	0	48.876
STORY2	B17	COMBENVE MAX	5.715	0	62	0	0.813	0	63.99
STORY2	B17	COMBENVE MAX	6.208	0	68.67	0	0.813	0	79.105
STORY2	B17	COMBENVE MAX	6.7	0	76.2	0	0.813	0	94.22
STORY2	B17	COMBENVE MIN	0.3	0	-58.56	0	-10.394	0	-102.271
STORY2	B17	COMBENVE MIN	0.792	0	-48.19	0	-10.394	0	-87.156
STORY2	B17	COMBENVE MIN	1.285	0	-37.83	0	-10.394	0	-72.041
STORY2	B17	COMBENVE MIN	1.777	0	-30.7	0	-10.394	0	-56.927
STORY2	B17	COMBENVE MIN	2.269	0	-30.7	0	-10.394	0	-41.812
STORY2	B17	COMBENVE MIN	2.762	0	-30.7	0	-10.394	0	-26.697
STORY2	B17	COMBENVE MIN	3.254	0	-30.7	0	-10.394	0	-11.583
STORY2	B17	COMBENVE MIN	3.746	0	-30.7	0	-10.394	0	-3.532
STORY2	B17	COMBENVE MIN	4.238	0	-30.7	0	-10.394	0	-18.647
STORY2	B17	COMBENVE MIN	4.731	0	-30.7	0	-10.394	0	-33.761
STORY2	B17	COMBENVE MIN	5.223	0	-30.7	0	-10.394	0	-48.876
STORY2	B17	COMBENVE MIN	5.715	0	-30.7	0	-10.394	0	-69.883
STORY2	B17	COMBENVE MIN	6.208	0	-30.7	0	-10.394	0	-102.048
STORY2	B17	COMBENVE MIN	6.7	0	-30.7	0	-10.394	0	-137.494
STORY2	B18	COMBENVE MAX	0.3	0	54.46	0	2.295	0	119.786
STORY2	B18	COMBENVE MAX	0.789	0	54.46	0	2.295	0	93.16
STORY2	B18	COMBENVE MAX	1.278	0	54.46	0	2.295	0	66.535
STORY2	B18	COMBENVE MAX	1.767	0	54.46	0	2.295	0	39.91
STORY2	B18	COMBENVE MAX	2.256	0	54.46	0	2.295	0	20.235
STORY2	B18	COMBENVE MAX	2.744	0	54.46	0	2.295	0	14.007
STORY2	B18	COMBENVE MAX	3.233	0	56.2	0	2.295	0	39.967
STORY2	B18	COMBENVE MAX	3.722	0	62.82	0	2.295	0	66.592
STORY2	B18	COMBENVE MAX	4.211	0	69.44	0	2.295	0	93.217
STORY2	B18	COMBENVE MAX	4.7	0	76.05	0	2.295	0	119.843
STORY2	B18	COMBENVE MIN	0.3	0	-54.46	0	-2.295	0	-119.786
STORY2	B18	COMBENVE MIN	0.789	0	-54.46	0	-2.295	0	-93.16

Lampiran 2. (Lanjutan)

Story	Beam	Load	Loc	P	V2	V3	T	M2	M3
STORY2	B18	COMBENVE MIN	1.278	0	-54.46	0	-2.295	0	-66.535
STORY2	B18	COMBENVE MIN	1.767	0	-54.46	0	-2.295	0	-39.91
STORY2	B18	COMBENVE MIN	2.256	0	-54.46	0	-2.295	0	-13.284
STORY2	B18	COMBENVE MIN	2.744	0	-54.46	0	-2.295	0	-13.341
STORY2	B18	COMBENVE MIN	3.233	0	-54.46	0	-2.295	0	-39.967
STORY2	B18	COMBENVE MIN	3.722	0	-54.46	0	-2.295	0	-66.592
STORY2	B18	COMBENVE MIN	4.211	0	-54.46	0	-2.295	0	-93.217
STORY2	B18	COMBENVE MIN	4.7	0	-54.46	0	-2.295	0	-125.232
STORY2	B19	COMBENVE MAX	0.3	0	30.46	0	10.243	0	93.765
STORY2	B19	COMBENVE MAX	0.792	0	30.46	0	10.243	0	78.77
STORY2	B19	COMBENVE MAX	1.285	0	30.46	0	10.243	0	63.775
STORY2	B19	COMBENVE MAX	1.777	0	30.46	0	10.243	0	48.78
STORY2	B19	COMBENVE MAX	2.269	0	30.46	0	10.243	0	41.804
STORY2	B19	COMBENVE MAX	2.762	0	30.46	0	10.243	0	38.303
STORY2	B19	COMBENVE MAX	3.254	0	30.46	0	10.243	0	44.201
STORY2	B19	COMBENVE MAX	3.746	0	30.46	0	10.243	0	48.667
STORY2	B19	COMBENVE MAX	4.238	0	30.46	0	10.243	0	48.029
STORY2	B19	COMBENVE MAX	4.731	0	37.1	0	10.243	0	42.289
STORY2	B19	COMBENVE MAX	5.223	0	43.76	0	10.243	0	56.185
STORY2	B19	COMBENVE MAX	5.715	0	50.43	0	10.243	0	71.18
STORY2	B19	COMBENVE MAX	6.208	0	57.09	0	10.243	0	86.175
STORY2	B19	COMBENVE MAX	6.7	0	63.75	0	10.243	0	101.171
STORY2	B19	COMBENVE MIN	0.3	0	-76.45	0	-0.776	0	-93.765
STORY2	B19	COMBENVE MIN	0.792	0	-66.08	0	-0.776	0	-78.77
STORY2	B19	COMBENVE MIN	1.285	0	-55.72	0	-0.776	0	-63.775
STORY2	B19	COMBENVE MIN	1.777	0	-45.35	0	-0.776	0	-48.78
STORY2	B19	COMBENVE MIN	2.269	0	-34.99	0	-0.776	0	-33.785
STORY2	B19	COMBENVE MIN	2.762	0	-30.46	0	-0.776	0	-18.79
STORY2	B19	COMBENVE MIN	3.254	0	-30.46	0	-0.776	0	-3.795
STORY2	B19	COMBENVE MIN	3.746	0	-30.46	0	-0.776	0	-11.2
STORY2	B19	COMBENVE MIN	4.238	0	-30.46	0	-0.776	0	-26.195
STORY2	B19	COMBENVE MIN	4.731	0	-30.46	0	-0.776	0	-41.19
STORY2	B19	COMBENVE MIN	5.223	0	-30.46	0	-0.776	0	-56.185
STORY2	B19	COMBENVE MIN	5.715	0	-30.46	0	-0.776	0	-71.18
STORY2	B19	COMBENVE MIN	6.208	0	-30.46	0	-0.776	0	-86.175
STORY2	B19	COMBENVE MIN	6.7	0	-30.46	0	-0.776	0	-107.81

Lampiran 3. *Output* ETABS untuk Analisis Kolom dengan SNI 2012

Story	Column	Load	Loc	P	V2	V3	T	M2	M3
STORY2	C17	COMBENVE MAX	0	562.13	109.97	172.08	13.782	347.314	224.269
STORY2	C17	COMBENVE MAX	1.7	562.13	109.97	172.08	13.782	62.649	37.321
STORY2	C17	COMBENVE MAX	3.4	562.13	109.97	172.08	13.782	128.507	149.628
STORY2	C17	COMBENVE MIN	0	-4684.34	-109.97	-93.6	-13.782	-189.723	-224.269
STORY2	C17	COMBENVE MIN	1.7	-4663.77	-109.97	-93.6	-13.782	-30.608	-37.321
STORY2	C17	COMBENVE MIN	3.4	-4643.21	-109.97	-93.6	-13.782	-237.769	-149.628
STORY2	C18	COMBENVE MAX	0	364.22	174.06	76.92	13.782	155.095	354.424
STORY2	C18	COMBENVE MAX	1.7	364.22	174.06	76.92	13.782	24.334	58.52
STORY2	C18	COMBENVE MAX	3.4	364.22	174.06	76.92	13.782	106.426	237.383
STORY2	C18	COMBENVE MIN	0	-1642.65	-174.06	-76.92	-13.782	-155.095	-354.424
STORY2	C18	COMBENVE MIN	1.7	-1622.09	-174.06	-76.92	-13.782	-24.334	-58.52
STORY2	C18	COMBENVE MIN	3.4	-1601.53	-174.06	-76.92	-13.782	-106.426	-237.383
STORY2	C19	COMBENVE MAX	0	368.44	173.71	76.57	13.782	154.214	353.694
STORY2	C19	COMBENVE MAX	1.7	368.44	173.71	76.57	13.782	24.049	58.388
STORY2	C19	COMBENVE MAX	3.4	368.44	173.71	76.57	13.782	106.116	236.919
STORY2	C19	COMBENVE MIN	0	-1630.03	-173.71	-76.57	-13.782	-154.214	-353.694
STORY2	C19	COMBENVE MIN	1.7	-1609.47	-173.71	-76.57	-13.782	-24.049	-58.388
STORY2	C19	COMBENVE MIN	3.4	-1588.91	-173.71	-76.57	-13.782	-106.116	-236.919
STORY2	C20	COMBENVE MAX	0	492.82	114.84	169.77	13.782	342.233	234.192
STORY2	C20	COMBENVE MAX	1.7	492.82	114.84	169.77	13.782	60.887	38.97
STORY2	C20	COMBENVE MAX	3.4	492.82	114.84	169.77	13.782	125.962	156.252
STORY2	C20	COMBENVE MIN	0	-4679.7	-114.84	-91.14	-13.782	-183.911	-234.192
STORY2	C20	COMBENVE MIN	1.7	-4659.13	-114.84	-91.14	-13.782	-28.974	-38.97
STORY2	C20	COMBENVE MIN	3.4	-4638.57	-114.84	-91.14	-13.782	-234.983	-156.252

Lampiran 4. *Output* ETABS untuk Analisis Balok dengan SNI 2012

Story	Beam	Load	Loc	P	V2	V3	T	M2	M3
STORY2	B17	COMBENVE MAX	0.3	0	64.06	0	1.705	0	213.429
STORY2	B17	COMBENVE MAX	0.792	0	64.06	0	1.705	0	181.891
STORY2	B17	COMBENVE MAX	1.285	0	64.06	0	1.705	0	150.352
STORY2	B17	COMBENVE MAX	1.777	0	64.06	0	1.705	0	118.813
STORY2	B17	COMBENVE MAX	2.269	0	64.06	0	1.705	0	87.275
STORY2	B17	COMBENVE MAX	2.762	0	64.06	0	1.705	0	55.736
STORY2	B17	COMBENVE MAX	3.254	0	64.06	0	1.705	0	49.172
STORY2	B17	COMBENVE MAX	3.746	0	64.06	0	1.705	0	44.83
STORY2	B17	COMBENVE MAX	4.238	0	64.06	0	1.705	0	38.88
STORY2	B17	COMBENVE MAX	4.731	0	64.06	0	1.705	0	70.419
STORY2	B17	COMBENVE MAX	5.223	0	64.06	0	1.705	0	101.957
STORY2	B17	COMBENVE MAX	5.715	0	64.06	0	1.705	0	133.496
STORY2	B17	COMBENVE MAX	6.208	0	65.83	0	1.705	0	165.035
STORY2	B17	COMBENVE MAX	6.7	0	76.2	0	1.705	0	196.574
STORY2	B17	COMBENVE MIN	0.3	0	-64.06	0	-10.394	0	-213.429
STORY2	B17	COMBENVE MIN	0.792	0	-64.06	0	-10.394	0	-181.891
STORY2	B17	COMBENVE MIN	1.285	0	-64.06	0	-10.394	0	-150.352
STORY2	B17	COMBENVE MIN	1.777	0	-64.06	0	-10.394	0	-118.813
STORY2	B17	COMBENVE MIN	2.269	0	-64.06	0	-10.394	0	-87.275
STORY2	B17	COMBENVE MIN	2.762	0	-64.06	0	-10.394	0	-55.736
STORY2	B17	COMBENVE MIN	3.254	0	-64.06	0	-10.394	0	-24.197
STORY2	B17	COMBENVE MIN	3.746	0	-64.06	0	-10.394	0	-7.341
STORY2	B17	COMBENVE MIN	4.238	0	-64.06	0	-10.394	0	-38.88
STORY2	B17	COMBENVE MIN	4.731	0	-64.06	0	-10.394	0	-70.419
STORY2	B17	COMBENVE MIN	5.223	0	-64.06	0	-10.394	0	-101.957
STORY2	B17	COMBENVE MIN	5.715	0	-64.06	0	-10.394	0	-133.496
STORY2	B17	COMBENVE MIN	6.208	0	-64.06	0	-10.394	0	-165.035
STORY2	B17	COMBENVE MIN	6.7	0	-64.06	0	-10.394	0	-196.574
STORY2	B18	COMBENVE MAX	0.3	0	113.78	0	4.79	0	250.251
STORY2	B18	COMBENVE MAX	0.789	0	113.78	0	4.79	0	194.626
STORY2	B18	COMBENVE MAX	1.278	0	113.78	0	4.79	0	139.002
STORY2	B18	COMBENVE MAX	1.767	0	113.78	0	4.79	0	83.377
STORY2	B18	COMBENVE MAX	2.256	0	113.78	0	4.79	0	27.752
STORY2	B18	COMBENVE MAX	2.744	0	113.78	0	4.79	0	27.872
STORY2	B18	COMBENVE MAX	3.233	0	113.78	0	4.79	0	83.497
STORY2	B18	COMBENVE MAX	3.722	0	113.78	0	4.79	0	139.122
STORY2	B18	COMBENVE MAX	4.211	0	113.78	0	4.79	0	194.746
STORY2	B18	COMBENVE MAX	4.7	0	113.78	0	4.79	0	250.371
STORY2	B18	COMBENVE MIN	0.3	0	-113.78	0	-4.79	0	-250.251
STORY2	B18	COMBENVE MIN	0.789	0	-113.78	0	-4.79	0	-194.626
Story	Beam	Load	Loc	P	V2	V3	T	M2	M3

Lampiran 4. (Lanjutan)

Story	Beam	Load	Loc	P	V2	V3	T	M2	M3
STORY2	B18	COMBENVE MIN	1.278	0	-113.78	0	-4.79	0	-139.002
STORY2	B18	COMBENVE MIN	1.767	0	-113.78	0	-4.79	0	-83.377
STORY2	B18	COMBENVE MIN	2.256	0	-113.78	0	-4.79	0	-27.752
STORY2	B18	COMBENVE MIN	2.744	0	-113.78	0	-4.79	0	-27.872
STORY2	B18	COMBENVE MIN	3.233	0	-113.78	0	-4.79	0	-83.497
STORY2	B18	COMBENVE MIN	3.722	0	-113.78	0	-4.79	0	-139.122
STORY2	B18	COMBENVE MIN	4.211	0	-113.78	0	-4.79	0	-194.746
STORY2	B18	COMBENVE MIN	4.7	0	-113.78	0	-4.79	0	-250.371
STORY2	B19	COMBENVE MAX	0.3	0	63.56	0	10.243	0	195.625
STORY2	B19	COMBENVE MAX	0.792	0	63.56	0	10.243	0	164.336
STORY2	B19	COMBENVE MAX	1.285	0	63.56	0	10.243	0	133.047
STORY2	B19	COMBENVE MAX	1.777	0	63.56	0	10.243	0	101.758
STORY2	B19	COMBENVE MAX	2.269	0	63.56	0	10.243	0	70.469
STORY2	B19	COMBENVE MAX	2.762	0	63.56	0	10.243	0	39.18
STORY2	B19	COMBENVE MAX	3.254	0	63.56	0	10.243	0	44.201
STORY2	B19	COMBENVE MAX	3.746	0	63.56	0	10.243	0	48.667
STORY2	B19	COMBENVE MAX	4.238	0	63.56	0	10.243	0	54.686
STORY2	B19	COMBENVE MAX	4.731	0	63.56	0	10.243	0	85.975
STORY2	B19	COMBENVE MAX	5.223	0	63.56	0	10.243	0	117.264
STORY2	B19	COMBENVE MAX	5.715	0	63.56	0	10.243	0	148.553
STORY2	B19	COMBENVE MAX	6.208	0	63.56	0	10.243	0	179.842
STORY2	B19	COMBENVE MAX	6.7	0	63.56	0	10.243	0	211.131
STORY2	B19	COMBENVE MIN	0.3	0	-76.45	0	-1.613	0	-195.625
STORY2	B19	COMBENVE MIN	0.792	0	-66.08	0	-1.613	0	-164.336
STORY2	B19	COMBENVE MIN	1.285	0	-63.56	0	-1.613	0	-133.047
STORY2	B19	COMBENVE MIN	1.777	0	-63.56	0	-1.613	0	-101.758
STORY2	B19	COMBENVE MIN	2.269	0	-63.56	0	-1.613	0	-70.469
STORY2	B19	COMBENVE MIN	2.762	0	-63.56	0	-1.613	0	-39.18
STORY2	B19	COMBENVE MIN	3.254	0	-63.56	0	-1.613	0	-7.891
STORY2	B19	COMBENVE MIN	3.746	0	-63.56	0	-1.613	0	-23.397
STORY2	B19	COMBENVE MIN	4.238	0	-63.56	0	-1.613	0	-54.686
STORY2	B19	COMBENVE MIN	4.731	0	-63.56	0	-1.613	0	-85.975
STORY2	B19	COMBENVE MIN	5.223	0	-63.56	0	-1.613	0	-117.264
STORY2	B19	COMBENVE MIN	5.715	0	-63.56	0	-1.613	0	-148.553
STORY2	B19	COMBENVE MIN	6.208	0	-63.56	0	-1.613	0	-179.842
STORY2	B19	COMBENVE MIN	6.7	0	-63.56	0	-1.613	0	-211.131

Lampiran 5. *Summary* ETABS 2002

ETABS v9.2.0 File:PEMODELAN 2 (2002) KOMBINASI 32BARU Units:KN-m

November 28, 2013 20:12

S T O R Y D A T A

STORY	SIMILAR TO	HEIGHT	ELEVATION
STORY6	None	4.000	24.000
STORY5	STORY6	4.000	20.000
STORY4	STORY6	4.000	16.000
STORY3	STORY6	4.000	12.000
STORY2	STORY6	4.000	8.000
STORY1	STORY6	4.000	4.000
BASE	None		0.000

S T A T I C L O A D C A S E S

STATIC CASE	CASE TYPE	AUTO LAT LOAD	SELF WT MULTIPLIER	NOTIONAL FACTOR	NOTIONAL DIRECTION
DEAD	DEAD	N/A	1.0000		
LIVE	LIVE	N/A	0.0000		
QEX	QUAKE	USER_COEFF	0.0000		
QEY	QUAKE	USER_COEFF	0.0000		
QEXECP	QUAKE	USER_COEFF	0.0000		
QEXECM	QUAKE	USER_COEFF	0.0000		

R E S P O N S E S P E C T R U M C A S E S

RESP SPEC CASE: SPECX

BASIC RESPONSE SPECTRUM DATA

MODAL COMBO	DIRECTION COMBO	MODAL DAMPING	SPECTRUM ANGLE	TYPICAL ECCEN
CQC	SRSS	0.0500	0.0000	0.0000

RESPONSE SPECTRUM FUNCTION ASSIGNMENT DATA

DIRECTION	FUNCTION	SCALE FACT
U1	FUNC1	9.8100
U2	----	N/A
UZ	----	N/A

RESP SPEC CASE: SPECY

BASIC RESPONSE SPECTRUM DATA

MODAL COMBO	DIRECTION COMBO	MODAL DAMPING	SPECTRUM ANGLE	TYPICAL ECCEN
CQC	SRSS	0.0500	0.0000	0.0000

RESPONSE SPECTRUM FUNCTION ASSIGNMENT DATA

DIRECTION	FUNCTION	SCALE FACT
U1	----	N/A
U2	FUNC1	9.8100
UZ	----	N/A

A U T O S E I S M I C U S E R C O E F F I C I E N T

Case: QEX

AUTO SEISMIC INPUT DATA

Direction: X

Typical Eccentricity = 5%

Eccentricity Overrides: No

Period Calculation: Program Calculated

Ct = 0.035 (in feet units)

Top Story: STORY6

Bottom Story: BASE

C = 0.023069421

K = 1

AUTO SEISMIC CALCULATION FORMULAS

V = C W

AUTO SEISMIC CALCULATION RESULTS

W Used = 49062.53

V Used = 0.0342W = 1131.84

AUTO SEISMIC STORY FORCES

STORY	FX	FY	FZ	MX	MY	MZ
STORY6	257.06	0.00	0.00	0.000	0.000	0.000
STORY5	279.35	0.00	0.00	0.000	0.000	0.000
STORY4	232.93	0.00	0.00	0.000	0.000	0.000
STORY3	181.57	0.00	0.00	0.000	0.000	0.000
STORY2	121.04	0.00	0.00	0.000	0.000	0.000
STORY1	59.90	0.00	0.00	0.000	0.000	0.000

A U T O S E I S M I C U S E R C O E F F I C I E N T

Case: QEY

AUTO SEISMIC INPUT DATA

Direction: Y

Typical Eccentricity = 5%

Eccentricity Overrides: No

Period Calculation: Program Calculated

Ct = 0.035 (in feet units)

Top Story: STORY6

Bottom Story: BASE

C = 0.02369311

K = 1

AUTO SEISMIC CALCULATION FORMULAS

V = C W

AUTO SEISMIC CALCULATION RESULTS

W Used = 49062.53

V Used = 0.0351W = 1162.44

AUTO SEISMIC STORY FORCES

STORY	FX	FY	FZ	MX	MY	MZ
STORY6	0.00	264.01	0.00	0.000	0.000	0.000
STORY5	0.00	286.90	0.00	0.000	0.000	0.000
STORY4	0.00	239.22	0.00	0.000	0.000	0.000
STORY3	0.00	186.47	0.00	0.000	0.000	0.000
STORY2	0.00	124.32	0.00	0.000	0.000	0.000
STORY1	0.00	61.52	0.00	0.000	0.000	0.000

Lampiran 6. *Summary* ETABS 2012

ETABS v9.2.0 File:PFMODELAN 2 (TANAH SEDANG) KOMBINASI 32BARU Units:KN-m November 27, 2013 19:55

S T O R Y D A T A

STORY	SIMILAR TO	HEIGHT	ELEVATION
STORY6	None	4.000	24.000
STORY5	STORY6	4.000	20.000
STORY4	STORY6	4.000	16.000
STORY3	STORY6	4.000	12.000
STORY2	STORY6	4.000	8.000
STORY1	STORY6	4.000	4.000
BASE	None		0.000

S T A T I C L O A D C A S E S

STATIC CASE	TYPE	AUTO LAT LOAD	SELF WT MULTIPLIER	NOTIONAL FACTOR	NOTIONAL DIRECTION
DEAD	DEAD	N/A	1.0000		
LIVE	LIVE	N/A	0.0000		
QEX	QUAKE	USER_COEFF	0.0000		
QEY	QUAKE	USER_COEFF	0.0000		
QEXECP	QUAKE	USER_COEFF	0.0000		
QEXECM	QUAKE	USER_COEFF	0.0000		

R E S P O N S E S P E C T R U M C A S E S

RESP SPEC CASE: SPECX

BASIC RESPONSE SPECTRUM DATA

MODAL COMBO	DIRECTION COMBO	MODAL DAMPING	SPECTRUM ANGLE	TYPICAL ECCEN
CQC	SRSS	0.0500	0.0000	0.0000

RESPONSE SPECTRUM FUNCTION ASSIGNMENT DATA

DIRECTION	FUNCTION	SCALE FACT
U1	FUNC1	9.8100
U2	----	N/A
UZ	----	N/A

RESP SPEC CASE: SPECY

BASIC RESPONSE SPECTRUM DATA

MODAL COMBO	DIRECTION COMBO	MODAL DAMPING	SPECTRUM ANGLE	TYPICAL ECCEN
CQC	SRSS	0.0500	0.0000	0.0000

RESPONSE SPECTRUM FUNCTION ASSIGNMENT DATA

DIRECTION	FUNCTION	SCALE FACT
U1	----	N/A
U2	FUNC1	9.8100
UZ	----	N/A

A U T O S E I S M I C U S E R C O E F F I C I E N T

Case: QEX

AUTO SEISMIC INPUT DATA

Direction: X

Typical Eccentricity = 5%

Eccentricity Overrides: No

Period Calculation: Program Calculated

Ct = 0.035 (in feet units)

Top Story: STORY6

Bottom Story: BASE

C = 0.0342

K = 1.59145

AUTO SEISMIC CALCULATION FORMULAS

V = C W

AUTO SEISMIC CALCULATION RESULTS

W Used = 49062.53

V Used = 0.0342W = 1677.94

AUTO SEISMIC STORY FORCES

STORY	FX	FY	FZ	MX	MY	MZ
STORY6	481.63	0.00	0.00	0.000	0.000	0.000
STORY5	469.88	0.00	0.00	0.000	0.000	0.000
STORY4	343.35	0.00	0.00	0.000	0.000	0.000
STORY3	225.77	0.00	0.00	0.000	0.000	0.000
STORY2	118.42	0.00	0.00	0.000	0.000	0.000
STORY1	38.89	0.00	0.00	0.000	0.000	0.000

A U T O S E I S M I C U S E R C O E F F I C I E N T

Case: QEY

AUTO SEISMIC INPUT DATA

Direction: Y

Typical Eccentricity = 5%

Eccentricity Overrides: No

Period Calculation: Program Calculated

Ct = 0.035 (in feet units)

Top Story: STORY6

Bottom Story: BASE

C = 0.0351

K = 1.5693

AUTO SEISMIC CALCULATION FORMULAS

V = C W

AUTO SEISMIC CALCULATION RESULTS

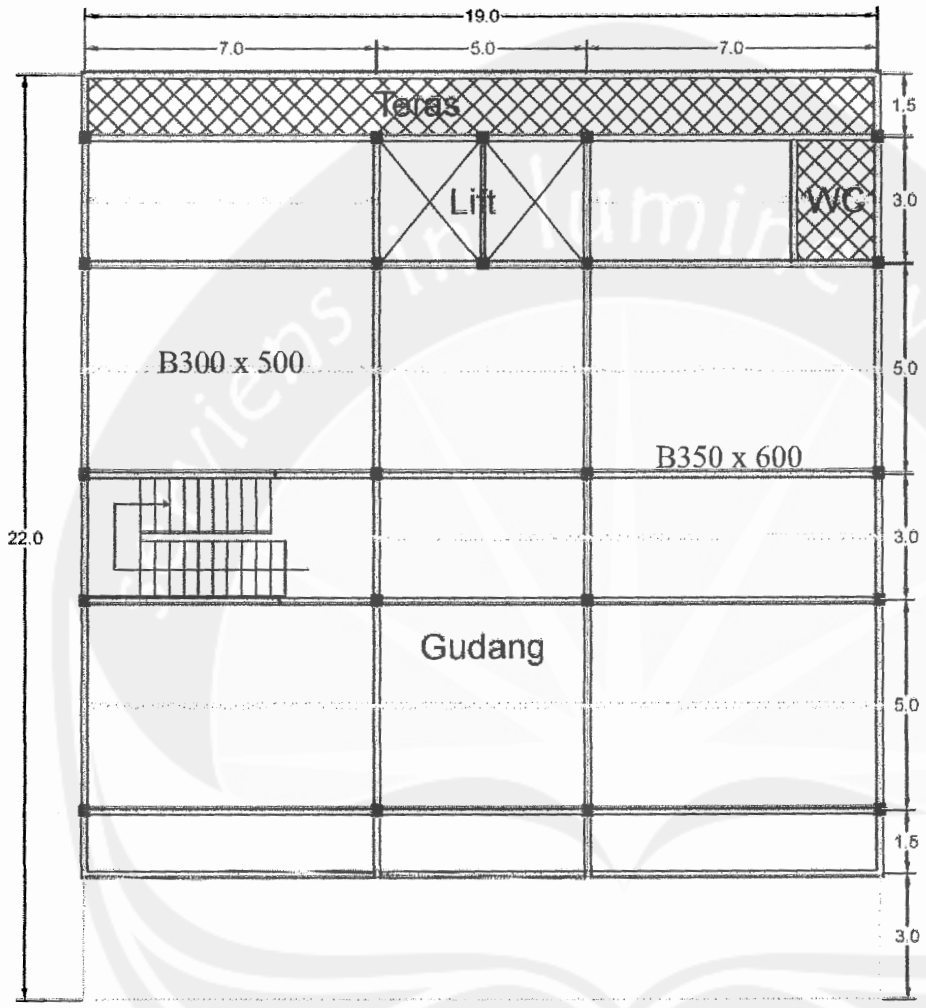
W Used = 49062.53

V Used = 0.0351W = 1722.09

AUTO SEISMIC STORY FORCES

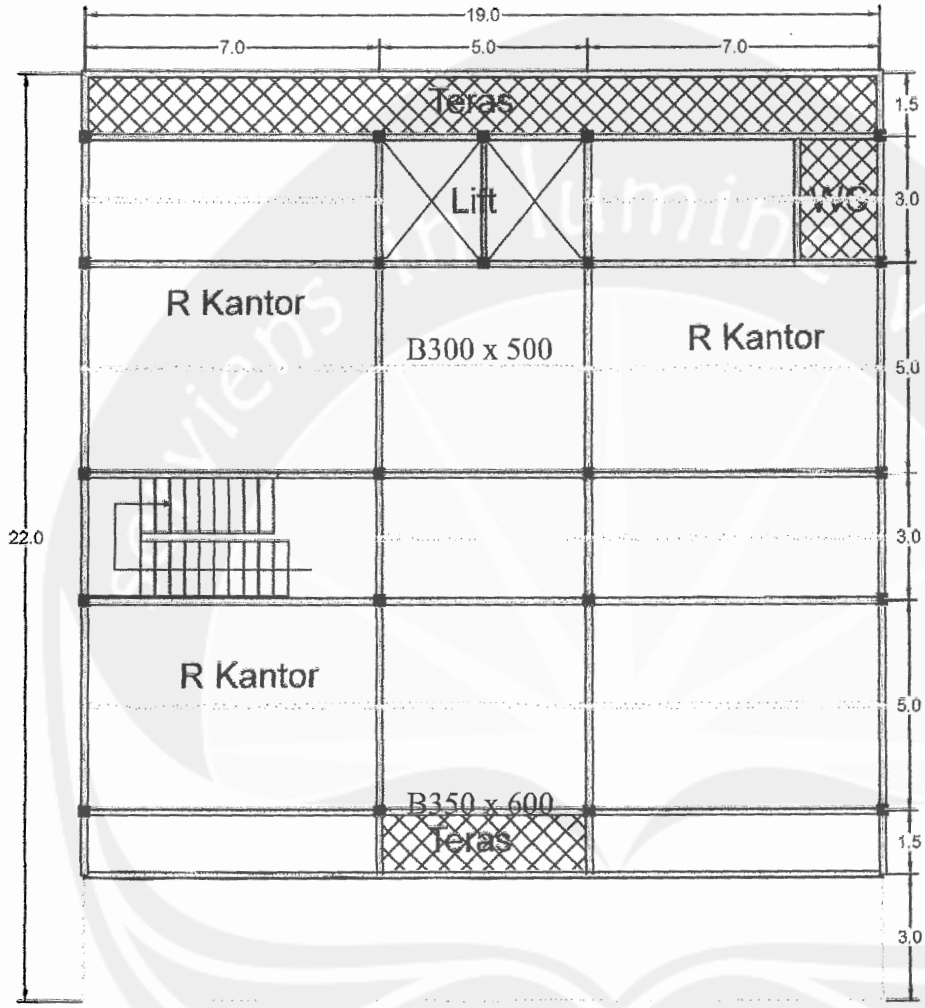
STORY	FX	FY	FZ	MX	MY	MZ
STORY6	0.00	490.51	0.00	0.000	0.000	0.000
STORY5	0.00	480.48	0.00	0.000	0.000	0.000
STORY4	0.00	352.84	0.00	0.000	0.000	0.000
STORY3	0.00	233.49	0.00	0.000	0.000	0.000
STORY2	0.00	123.57	0.00	0.000	0.000	0.000
STORY1	0.00	41.21	0.00	0.000	0.000	0.000

Lampiran 7. Denah Lantai Satu



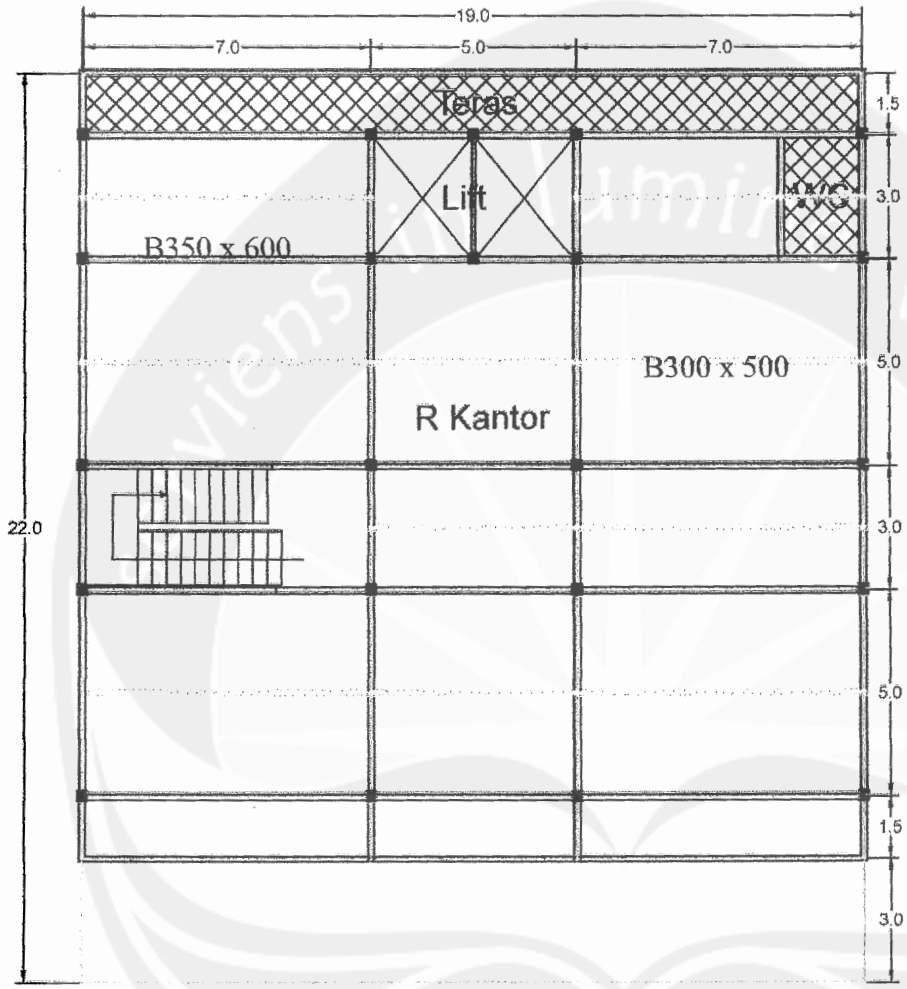
Denah Lantai Satu
Skala 1 : 200

Lampiran 8. Denah Lantai Dua



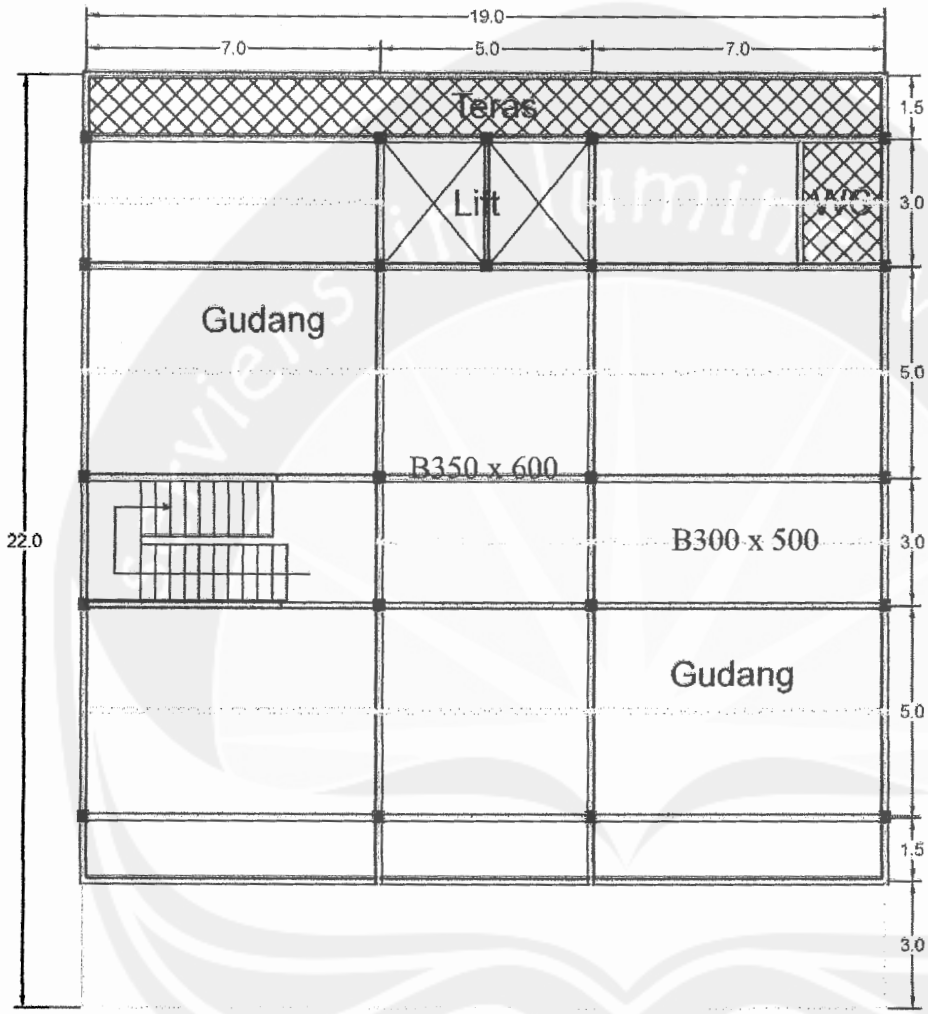
Denah Lantai Dua
Skala 1 : 200

Lampiran 9. Denah Lantai Tiga



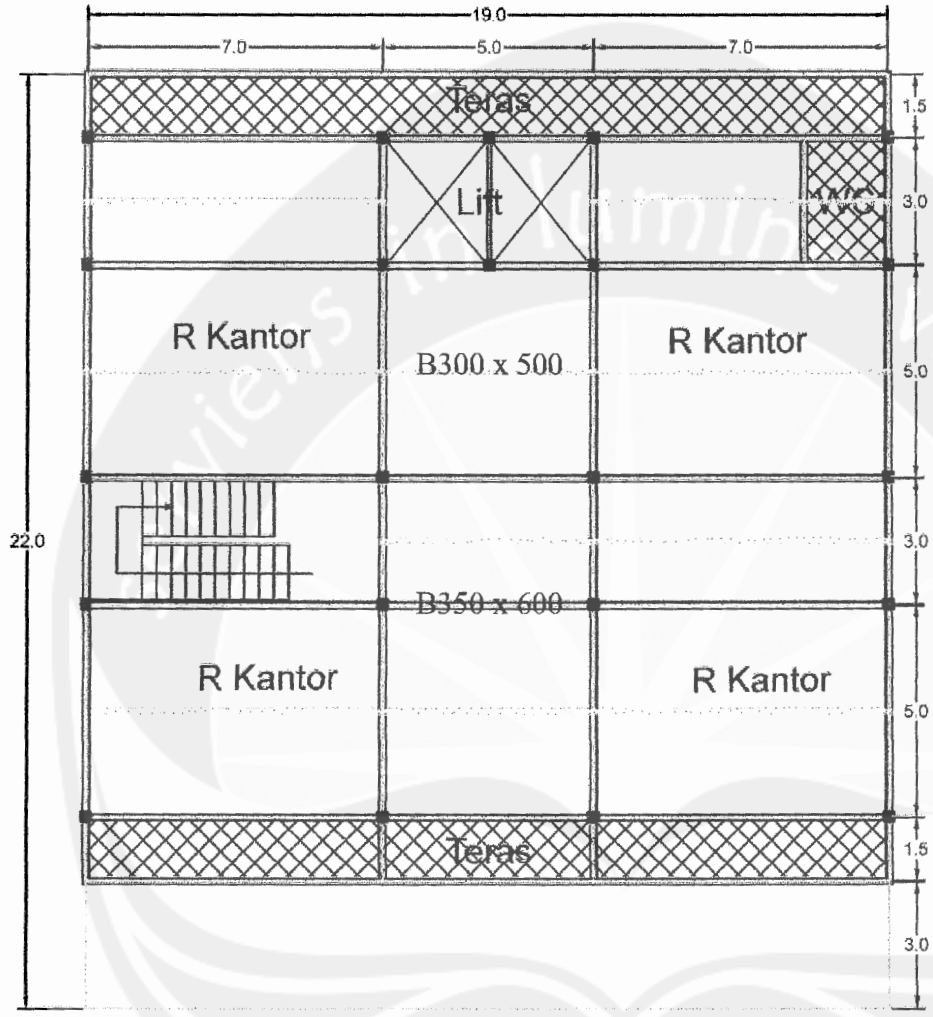
Denah Lantai Tiga
Skala 1 : 200

Lampiran 10. Denah Lantai Empat



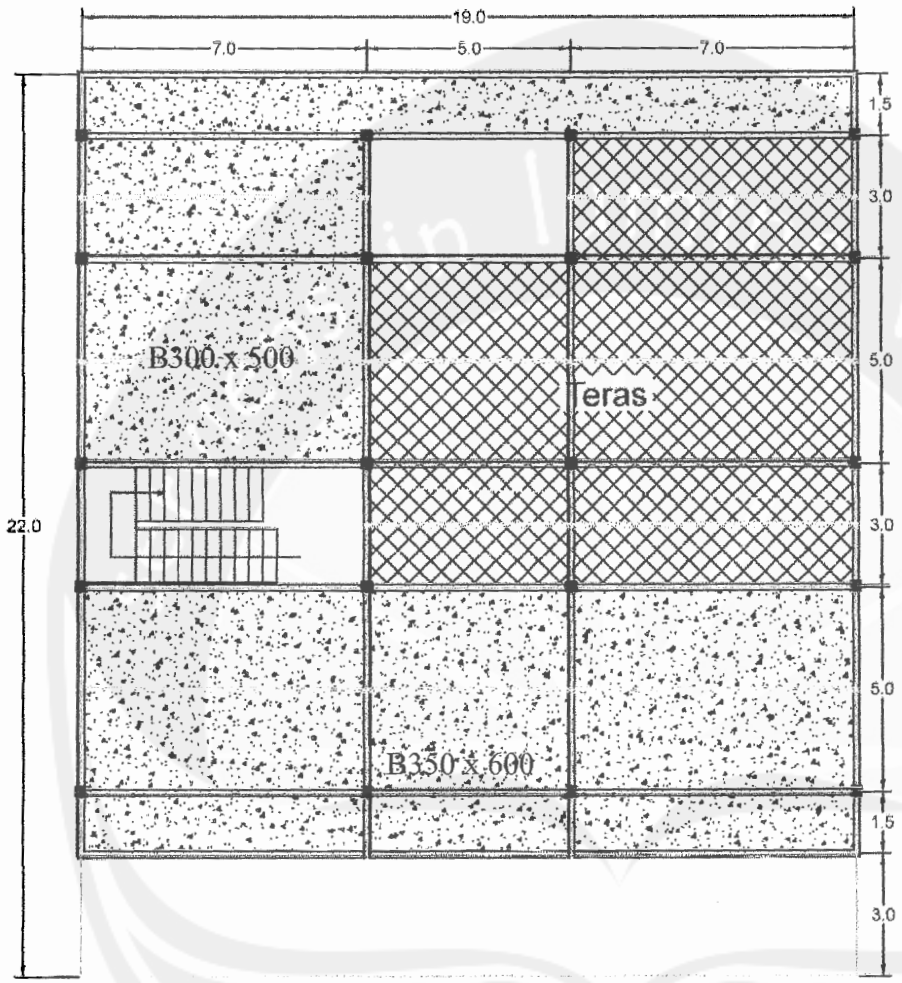
Denah Lantai Empat
Skala 1 : 200

Lampiran 11. Denah Lantai Lima



Denah Lantai Lima
Skala 1 : 200

Lampiran 12. Denah Lantai Enam



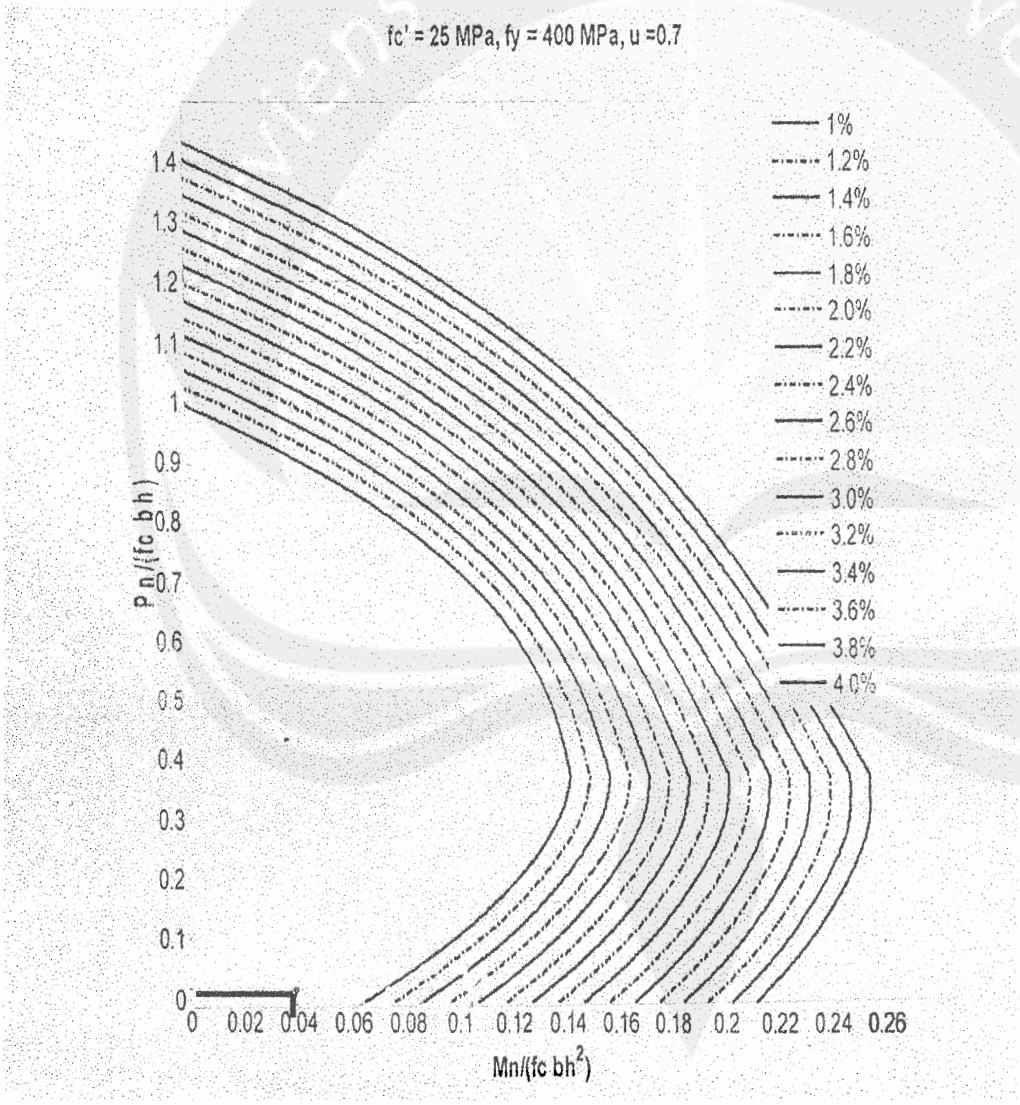
Denah Lantai Enam
Skala 1 : 200

Lampiran 13. Diagram Interaksi Kolom 2002 (Arfiadi, 2013)

$\frac{P_u}{f_c' \times b \times h} = 0.0183$

$\frac{M_n}{f_c' \times b \times h^2} = 0.03685$

$\rho = 1\%$

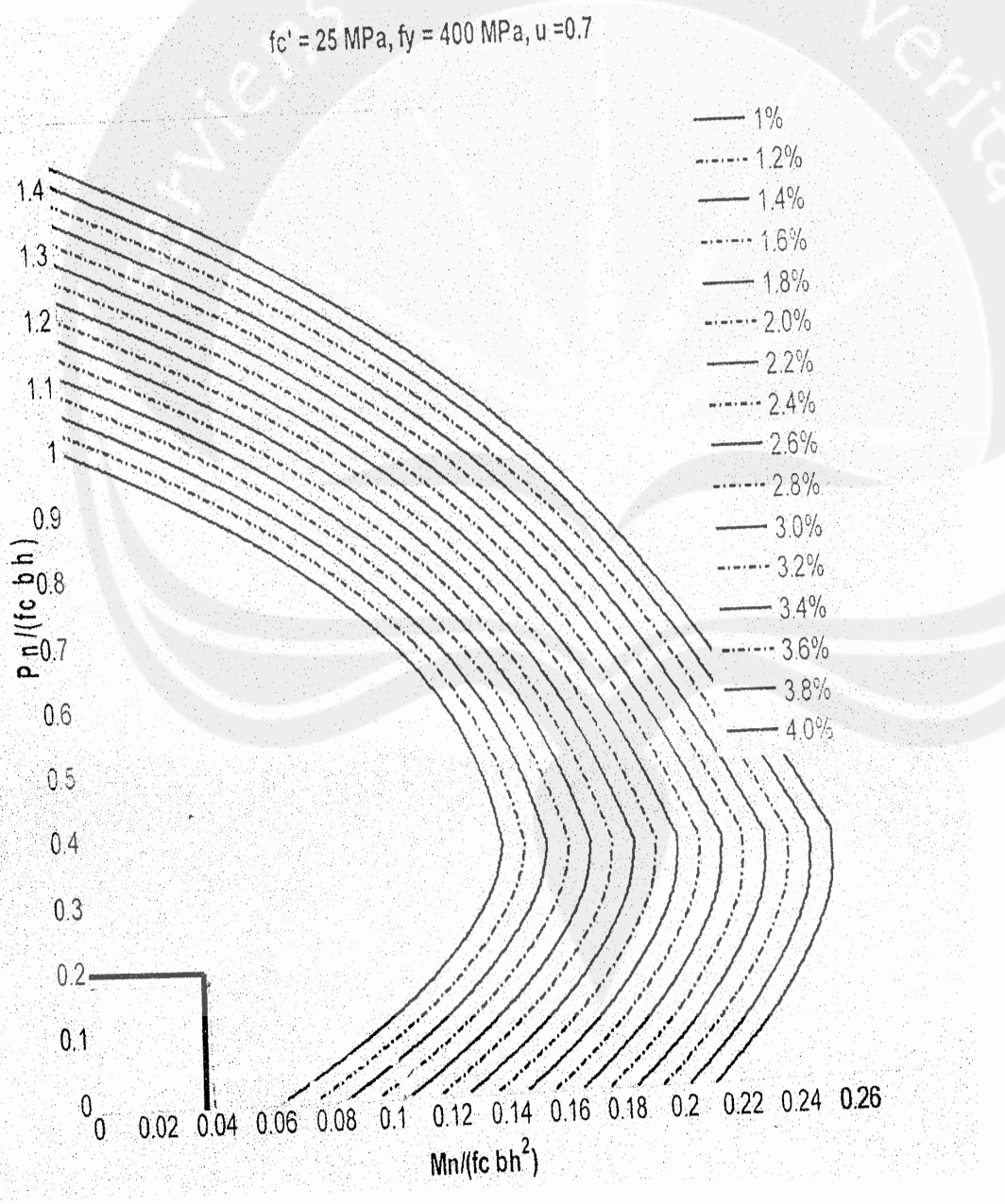


Lampiran 13. (Lanjutan)

$$\frac{P_u}{f_c' \times b \times h} = 0.1825$$

$$\frac{M_n}{f_c' \times b \times h^2} = 0.03685$$

ρ = 1%

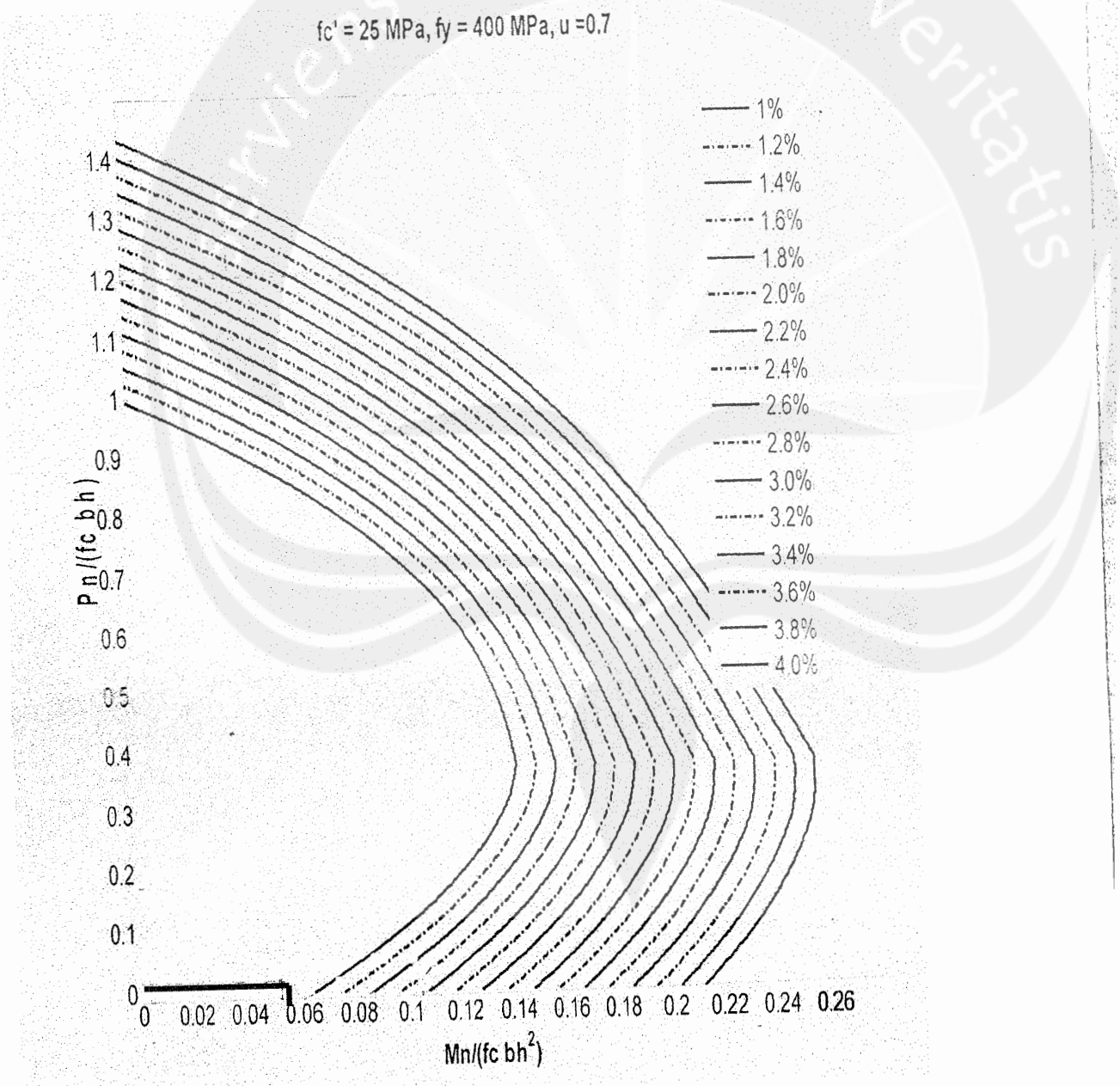


Lampiran 13. (Lanjutan)

$$\frac{P_u}{f_c' \times b \times h} = 0.0183$$

$$\frac{M_n}{f_c' \times b \times h^2} = 0.04906$$

$$\rho = 1\%$$



Lampiran 13. (Lanjutan)

$$\frac{P_u}{f_c' \times b \times h} = 0.1825$$

$$\frac{M_n}{f_c' \times b \times h^2} = 0.04906$$

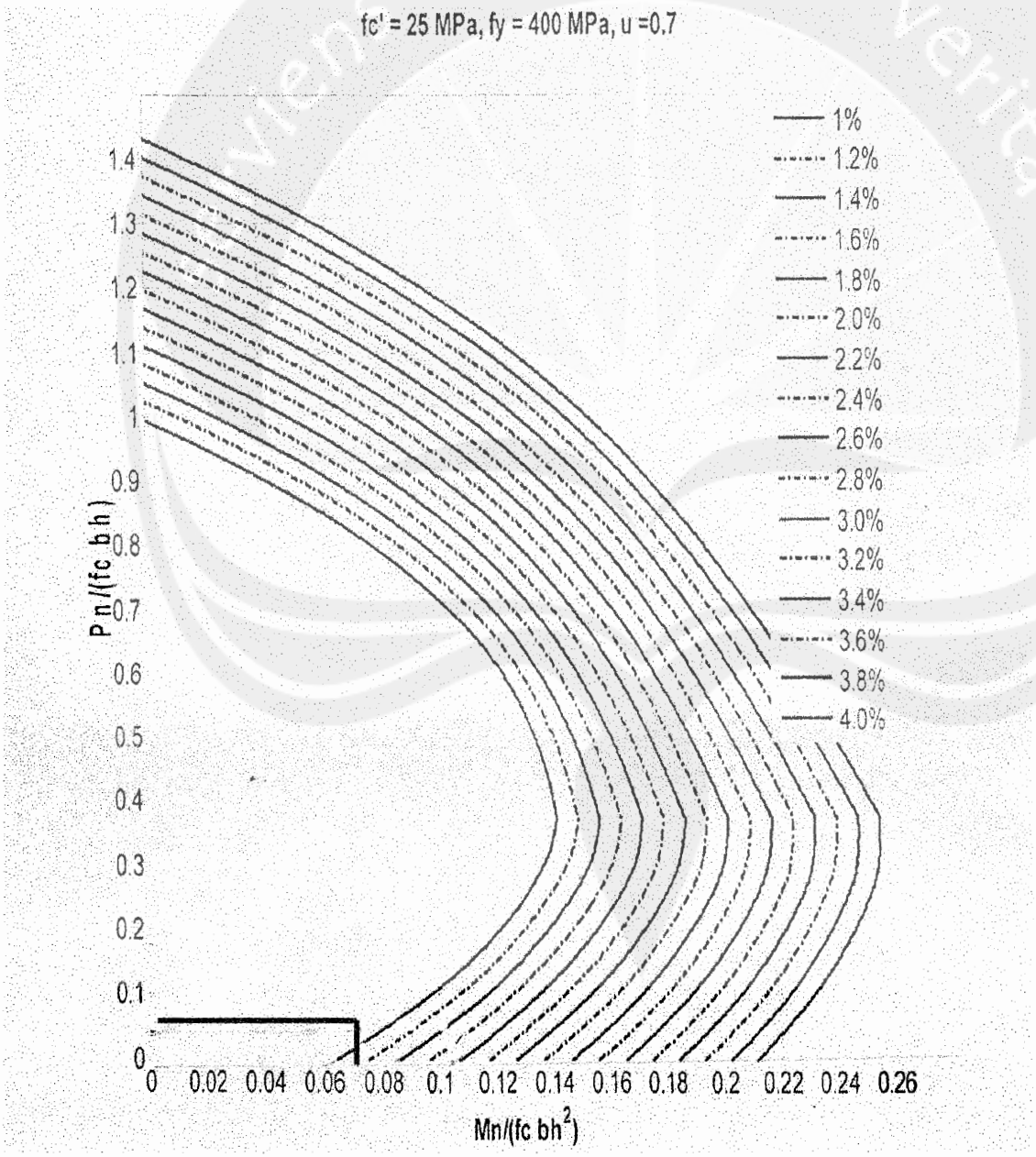
ρ = 1%

Lampiran 14. Diagram Interaksi Kolom 2012

$\frac{P_u}{f_c' \times b \times h}$ = 0.0405

$\frac{M_n}{f_c' \times b \times h^2}$ = 0.0676

ρ = 1%

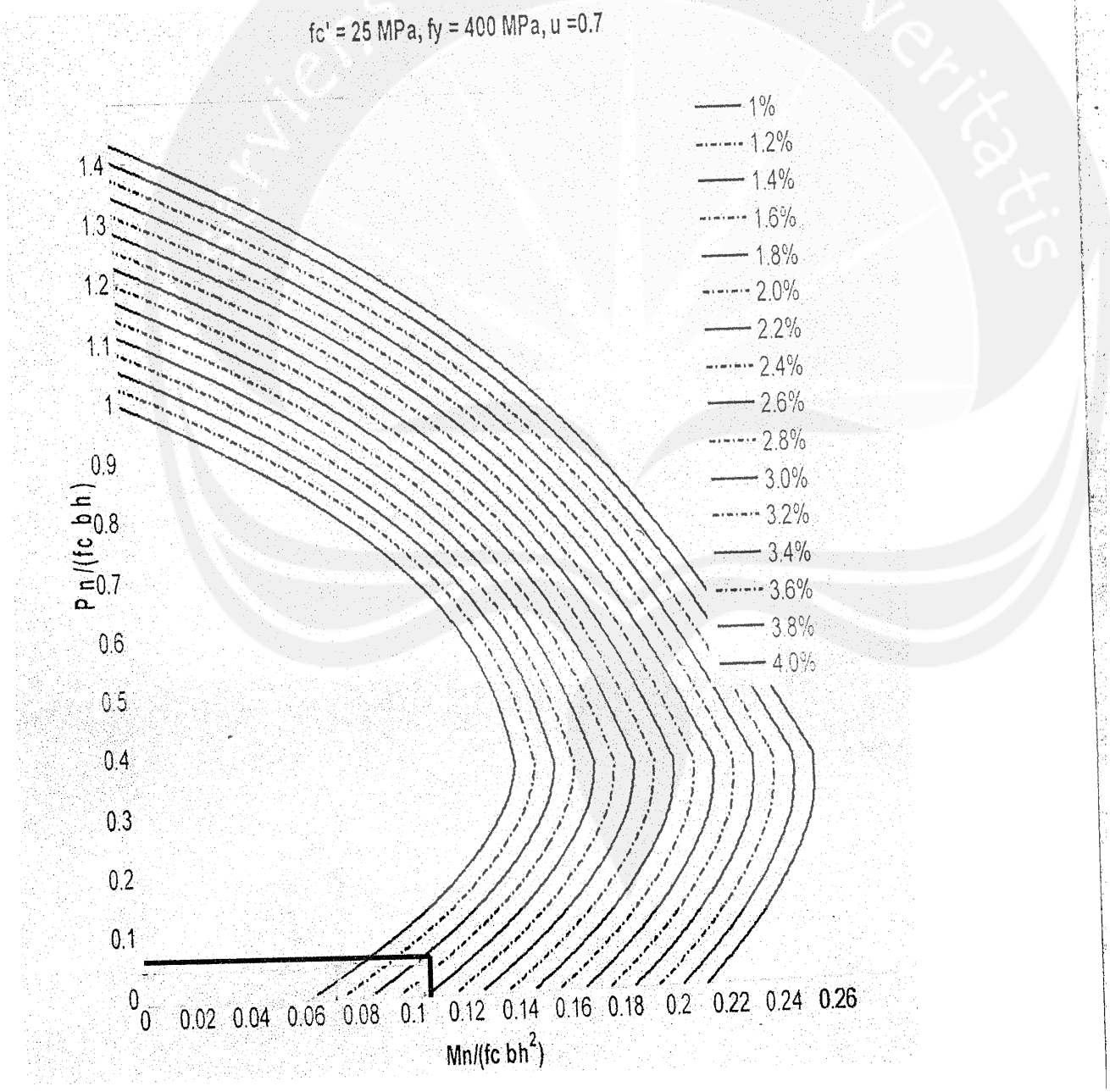


Lampiran 14. (Lanjutan)

$$\frac{P_u}{f_c' \times b \times h} = 0.0405$$

$$\frac{M_n}{f_c' \times b \times h^2} = 0.101$$

$$\rho = 1.6\%$$

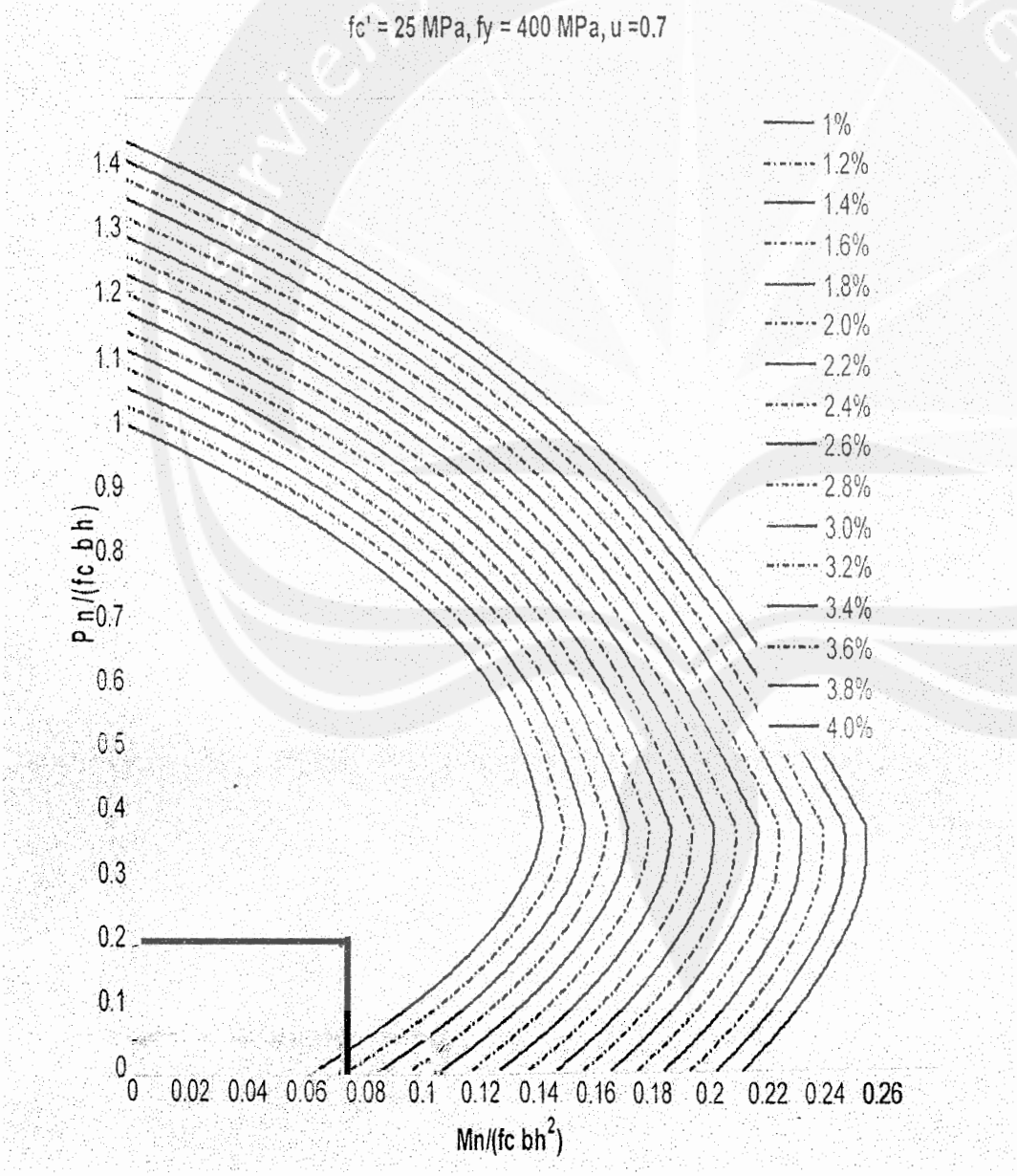


Lampiran 14. (Lanjutan)

$$\frac{P_u}{f_c' \times b \times h} = 0.1825$$

$$\frac{M_n}{f_c' \times b \times h^2} = 0.0676$$

ρ = 1%

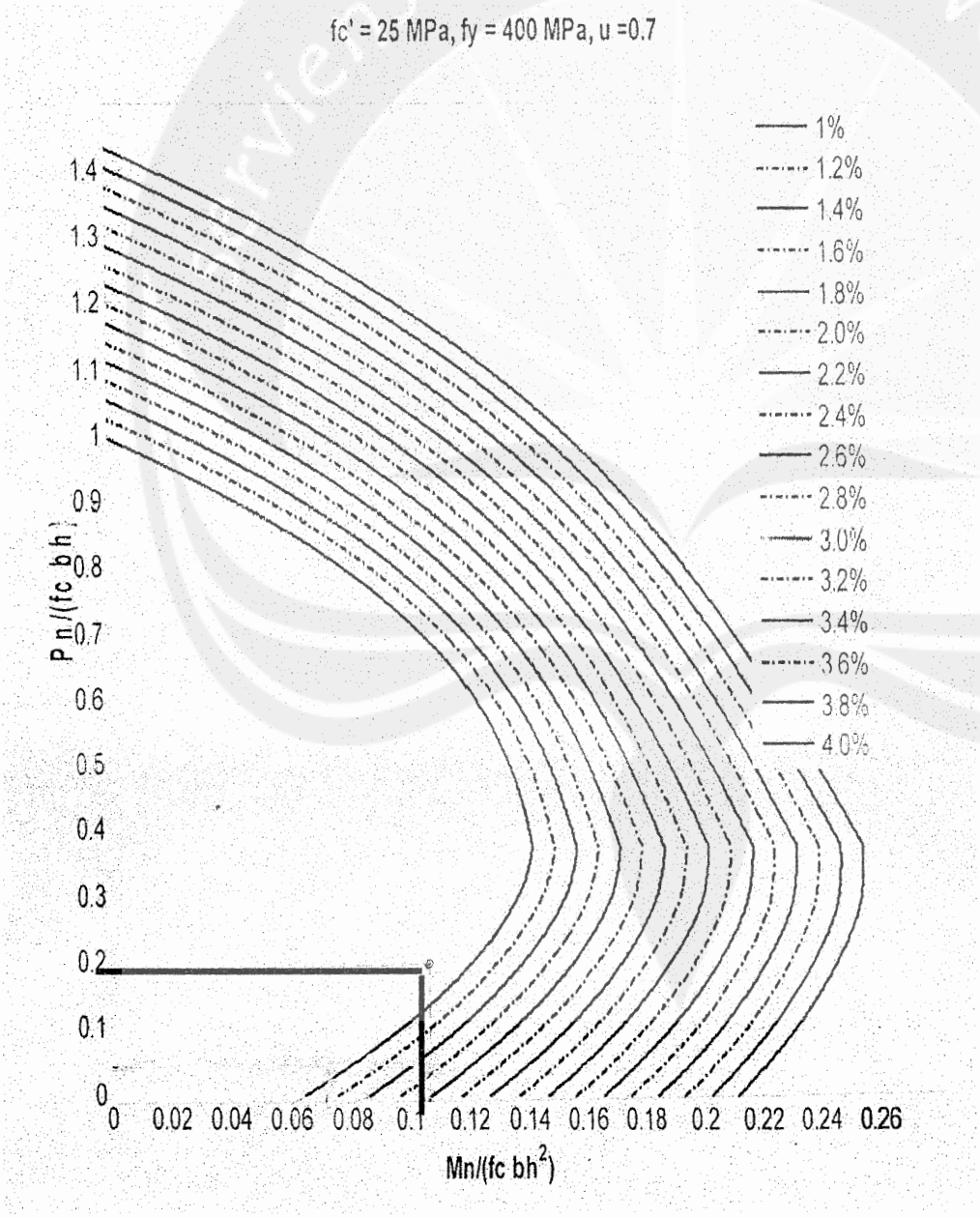


Lampiran 14. (Lanjutan)

$$\frac{P_u}{f_c' \times b \times h} = 0.1825$$

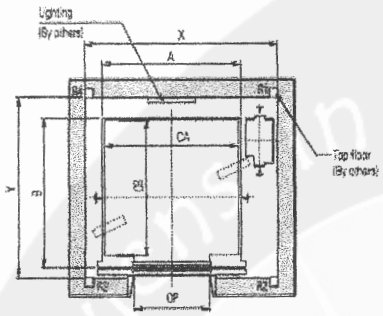
$$\frac{M_n}{f_c' \times b \times h^2} = 0.101$$

$$\rho = 1\%$$

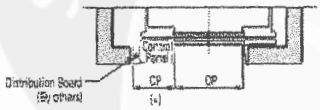


Lampiran 15. Spesifikasi Lift

Plan of Hoistway (8~38 Persons)



Floor without control panel

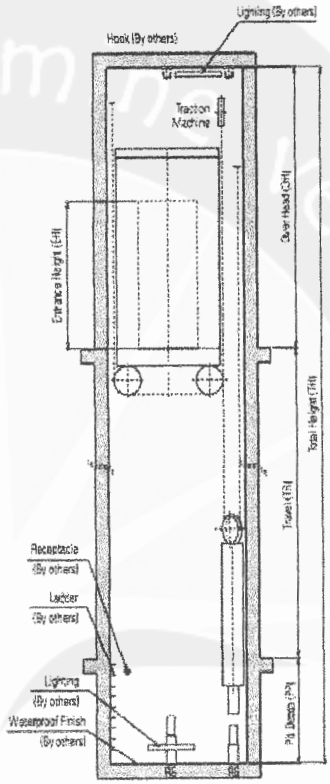


Floor with control panel

Notes: 1. The lighting of hoistway should be installed less than 500mm from above the ceiling of hoistway and within 500mm above the bottom of the pit. (By others)

2. Machine room temperature should be maintained below 40°C with ventilating fan and/or air conditioner (if necessary) and humidity below 90%.

Section of Hoistway



Lampiran 15. (Lanjutan)

Standard Dimensions (6~38 Persons)

(Unit : mm)

Speed (m/sec)	Capacity		Clear Opening	Car	Hoistway			Motor (kW)	M/C Room Reaction (kg)				Pit Reaction (kg)	
	Persons	kg	OP	CA×CB	A×B	X	Y		R1	R2	R3	R4	R5	R6
1	6	450	800	1300×1100	1360×1255	2050	1700	3.4	4000	2100	1500	600	7000	1600
1.5								5.1						
1.75								5.9						
1	9	600	800	1300×1190	1360×1345	2050	1800	3.7	4100	2300	1600	600	7300	1600
1.5								5.6						
1.75								6.5						
1	10	700	800	1300×1300	1360×1455	2050	1800	4.3	4500	2300	1700	650	7800	1600
1.5								6.5						
1.75								7.5						
1	11	750	800	1300×1400	1360×1555	2050	1850	4.6	4800	2300	1750	700	8100	1700
1.5								6.9						
1.75								8.1						
1	13	900 (930 (HC))	900	1500×1400 1600×1350	1560×1555 1660×1505	2200 2300	1850	5.7	5100	2800	1800	750	9200	1900
1.5								8.6						
1.75								10						
2					1630×1570 1730×1520	2400 2500	2100 2250	11.5	5900	3700	1800	900	11200	2300
2.5								14.5						
1	15	1000	900	1600×1400	1660×1555	2300	1900 (2100)	6.2	5400	2700	1900	800	9800	2000
1.5								9.2						
1.75								10.8						
2					1730×1570	2500	2100 2250	12.3	6100	3900	2200	900	11800	2500
2.5								15.4						
1	17	1150	1000	1800×1400	1900×1570	2600	2100	7.1	6300	3400	2100	900	12500	2500
1.5								10.6						
1.75								12.4						
2								14.1	6600	4200	2300	900	14200	2700
2.5						2650	2250	17.7						
1	20	1350	1000	1800×1600	1900×1770	2650		8.3	7700	4300	2500	1100	13900	3000
1.5								12.5						
1.75							2400	14.5						
2						2680		16.6	8200	4600	2600	1200	16500	3100
2.5								20.7						
1	24	1600	1100	2000×1600	2100×1770	2850		9.9	7900	4600	2600	1200	15200	3200
1.5								14.8						
1.75							2450	17.2						
2						2880		19.7	8300	4900	2700	1200	17800	3300
2.5								24.6						
1	27	1750	1200	1600×2300	1700×2537	2480	2850	11.5	8600	4300	2900	1300	16700	2800
1.5								17.2						
1.75								20.1						
1	30	2000	1200	2100×1900	2200×2107	3000	2550	12.3	9100	4700	3100	1300	19800	3300
1.5								18.4						
1.75								21.5						
1	38	2500	1400	2200×2200	2300×2437	3300	3050	15.4	10900	5200	3300	1600	24000	3700
1.5								23						
1.75								26.9						

Notes : 1. When non-standard capacities and dimensions (including fire protection doors) are required to meet the local code, please consult Hyundai.
2. The minimum hoistway dimensions are shown on the above table. Therefore, some allowances should be made considering the sloping of the hoistways.
3. If the height of floor is over 11m, please consult Hyundai as to the needs for emergency exit.
4. Above dimensions are applied in case the door is standard. In case fire protection door that the clear opening is over 1000mm is applied, hoistway size for 1car should be applied above X1 dimension plus 100mm.
5. In case the emergency stop switch is applied to the counter weight, consult Hyundai.
6. When face to face arrangement is required, partitioning work for hoistway is required. (EN81)

Persons	Speed (m/sec)	Overhead (OH)	Pit (PP)	Control Panel (CP)(*)
6~17	0.75	3800	1500	530
	1			
	1.5	3900	1800	530
	1.75	4000	2100	530
13~17	2	4300	2200	530
	2.5	4600	2400	530
20~24	0.75	4200	1500	530
	1			
	1.5	4300	1800	630
	1.75	4500	2100	630
	2	4800	2200	630
	2.5	5100	2400	630
27~30	0.75	4400	1750	530
	1			
	1.5	4500	1900	630
	1.75	4600	2100	630
38	0.75	5000	1750	630
	1			
	1.5	5100	1900	630
	1.75	5300	2100	630

▲ Notes : 1. Above dimensions are applied for car height of 2500mm (car internal height is 2300mm). For other applicable dimensions, consult Hyundai.
2. For car internal height (under 17 persons) of 2500mm, dimension of overhead is OH plus 200mm.
3. The minimum hoistway dimensions are shown on the above table. Therefore, some allowances should be made considering the sloping of the hoistways.
4. When face to face arrangement is required, partitioning work for hoistway is required. (EN81)
5. If the hoistway is glass, consult Hyundai as it needs to finish laminated glass. (EN81)
6. When non-standard capacities and dimensions are required to meet the local code, please consult Hyundai Elevator.